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Mazdoor Kisan Shakti Sangathan

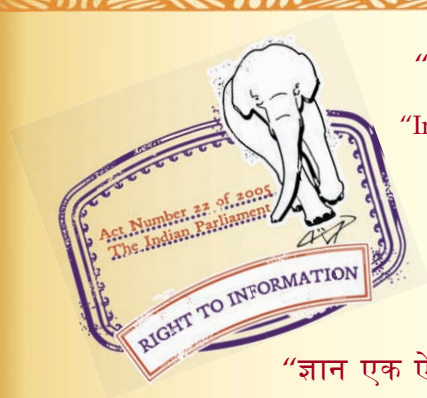
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IS 7390 (1986): 3150 Hz flutter test film for 35 mm motion picture sound reproducers, photographic type [MED 32: Photographic Equipment]



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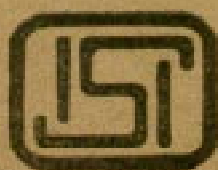
“Knowledge is such a treasure which cannot be stolen”

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Indian Standard
SPECIFICATION FOR
3 150 Hz FLUTTER TEST FILM FOR 35 mm
MOTION PICTURE SOUND REPRODUCER
PHOTOGRAPHIC TYPE
(*First Revision*)

UDC 771.531.351 : 778.554.4 : 534.851.7



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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9-BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR
3 150 Hz FLUTTER TEST FILM FOR 35 mm
MOTION PICTURE SOUND REPRODUCER
PHOTOGRAPHIC TYPE
(First Revision)

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Indian Standard

SPECIFICATION FOR 3 150 Hz FLUTTER TEST FILM FOR 35 mm MOTION PICTURE SOUND REPRODUCER PHOTOGRAPHIC TYPE (*First Revision*)

0. FOREWORD

0.1 This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 7 January 1986, after the draft finalized by the Cinematographic Equipment Sectional Committee had been approved by the Electrotechnical Division Council.

0.2 This Indian Standard was first published in 1974, and is revised to incorporate modifications and change in base frequency to 3 150 Hz.

0.3 Test films are important tools in attaining and assuring acceptable and uniform performance for motion picture equipment. This is one of the series of standards for test films for 35 mm motion picture sound reproducers, photographic type. Other standards in the series are:

IS : 6561-1972 Buzz-track test film

IS : 6562-1972 1 000 Hz balancing and signal level test film

IS : 6563-1972 Sound-focusing test film

IS : 6564-1972 Scanning beam uniformity test film.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard covers the requirements of 3 150 Hz flutter test film for 35 mm motion picture sound reproducers, photographic type.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 1885 (Part 34)-1972* shall apply.

3. DESCRIPTION

3.1 3150 Hz Flutter Test Film — This film carries a 3 150 Hz tone, correct to within 25 Hz with an output level constant within 0.25 dB. The total flutter content at the time of sale does not exceed 0.1 percent.

4. REQUIREMENTS

4.1 Test Film — The test film shall have either an originally recorded, direct playback positive variable-area sound track, or an originally recorded variable-density sound track, developed as a toe record. The recorded frequency shall be within ± 25 Hz of the nominal 3 150 Hz frequency. The modulation of the recording shall be 80 ± 5 percent.

4.1.1 The output level of the film shall be constant within ± 0.25 dB. (This is equivalent to an amplitude tolerance of ± 0.038 mm when recording variable area sound track with a nominal amplitude of 1.40 mm).

4.1.2 The total rms flutter content of the film shall be less than 0.1 percent at the time of sale.

4.1.3 The wave-form distortion of the recording shall not exceed 5 percent.

4.2 Film Stock — The film stock used shall be cut and perforated in accordance with IS : 6085-1974†.

4.3 Shrinkage — The film stock used shall not have a shrinkage of more than 0.5 percent. When tested by the method described in Appendix A.

4.4 Length — The nominal length of the test film shall be 30 m.

4.5 Storage — Care should be taken by users of these test films that the characteristics of the film are not altered by shrinkage due to incorrect storage conditions. Recommendations on the storage of films is given in Appendix B.

*Electrotechnical vocabulary: Part 34 Cinematography.

†Dimensions for 35 mm motion-picture film.

5. IDENTIFICATION

5.1 Identification — The test film shall be provided with suitable leader, title and trailer.

A P P E N D I X A

(Clause 4.3)

DETERMINATION OF SHRINKAGE OF FILM STOCK

A-1. TEST METHOD

A-1.1 Test Sample — At least 20 strips of film approximately 80 cm in length shall be cut for measurement of shrinkage.

A-1.2 Procedure — After normal development and drying at a temperature not exceeding 27°C, the strips shall be placed at least 6.4 mm apart in racks and kept for 7 days in an oven maintained at $50 \pm 2^\circ\text{C}$ and a relative humidity of 30 percent.

A-1.2.1 The strips shall then be removed, reconditioned thoroughly to 65 percent relative humidity at $25 \pm 2^\circ\text{C}$ and the shrinkage measured by a suitable method.

A-2. CALCULATION

A-2.1 The percent shrinkage shall then be calculated on the basis of deviation from the nominal dimension for the length of 100 consecutive perforation intervals given in IS : 6085-1979*.

A P P E N D I X B

(Clause 4.5)

RECOMMENDATIONS ON STORAGE OF CELLULOSE ACETATE FILMS

B-1. CONTAINERS

B-1.1 The film should be kept, preferably wound, in cylindrical containers provided with a dust tight lid and made of material which will have no deleterious effect on the film.

*Dimensions for 35 mm motion-picture film.

B-2. METHOD OF STORAGE

B-2.1 The innermost layer of the roll of film should not be wound to a diameter smaller than 3 cm, and it is desirable to use a suitable core for the film.

B-2.2 The film should be wound carefully and no attempt made to tighten the roll by pulling on one end of the strip; this would damage the film.

B-2.3 The outer layer of the film should be held in position by a paper strip or other means, such as an outer wrapping of waste film secured with adhesive tape. Rubber bands should not be used to secure the film, if stored in rolls.

B-3. STORAGE CONDITIONS

B-3.1 The containers holding the film should be stored in an atmosphere which should have a relative humidity of not less than 30 percent (to avoid brittleness) or more than 75 percent (to avoid exudation of plasticizer and the sticking of the film).

B-3.2 The temperature should not be less than 0°C nor more than 40°C.



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